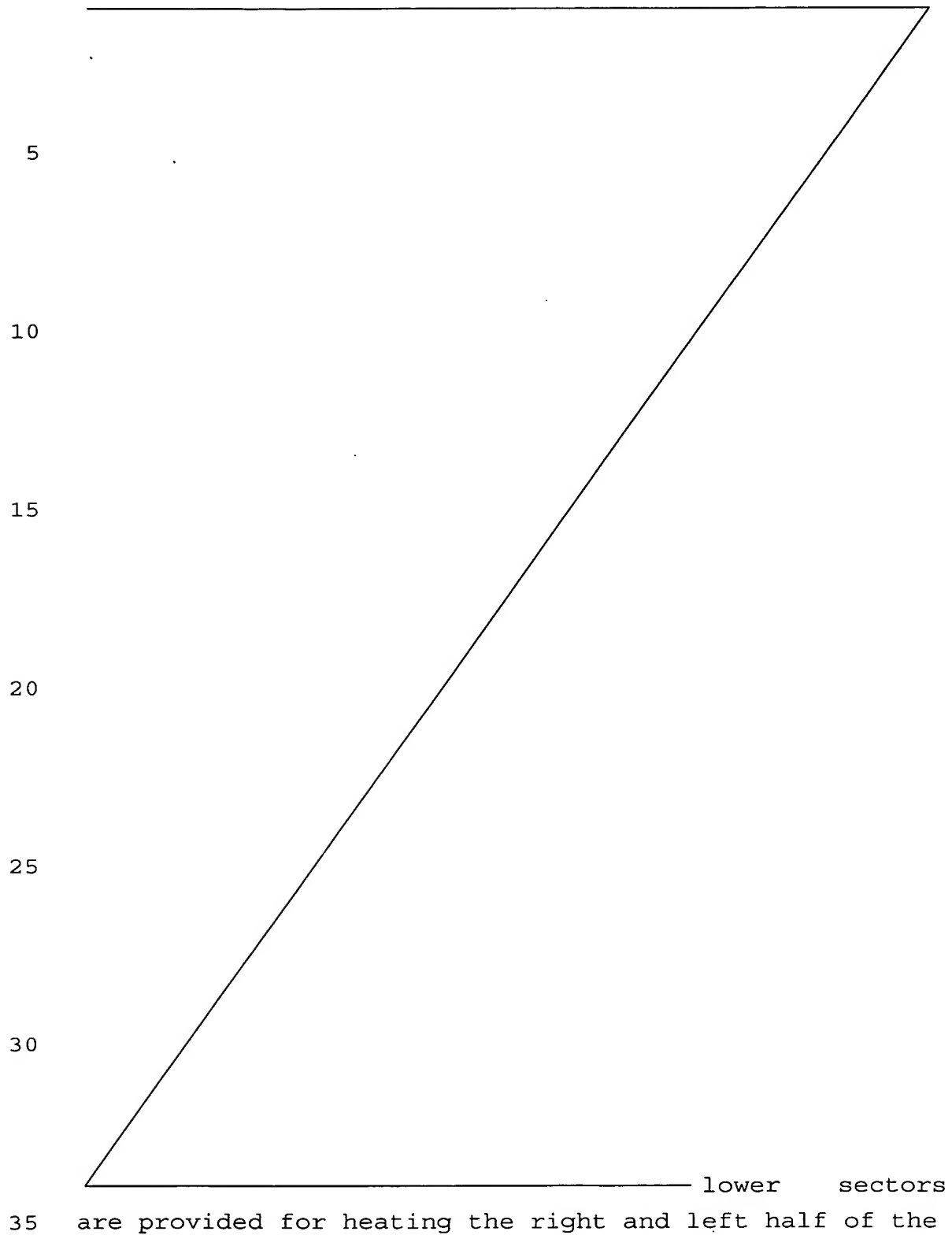


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AMENDED SHEET

rear area. The two lower sectors have emanating from them two pairs of air ducts, of which one pair leads to the left half of the rear area and one pair to the right half of the rear area. Each air duct is closed
5 off by means of an air outflow device, of which, in each case in the left and right half of the rear area, one air outflow device is arranged in the foot space and the other air outflow device is arranged in the midplane of the rear area for the direct flow of air to
10 the rear area passengers.

A known air conditioning installation for a passenger cell with a front space and with a rear area (US 5,181,553) has two separate air mixing chambers for
15 the individual thermal control of the air supplied to the front space and to the rear area. The air mixing chamber for the rear area has connected to it an air duct which leads to the rear area and which is closed off by means of an air outflow device placed in the
20 midplane of the rear area. Two duct branches emanate from the air duct and are closed off in each case by means of an air outflow device placed in the foot space of the rear area. Arranged at the branch point of the duct branches is an air control member which consists
25 of two air flaps and which can be adjusted between a pivoting end position closing the duct branches completely and opening the air outflow device in the midplane completely and a pivoting end position opening the duct branches completely and closing the air
30 outflow device in the midplane completely. Adjustment is controlled in this case in such a way that the air control member closes the duct branches and consequently the air outflow devices in the foot space when the temperature of the conditioned air supplied

via the air duct is lower than a predetermined temperature value. This prevents cold air from flowing via the air outflow devices in the foot space.

5 The object on which the invention is based is to provide an air conditioning installation with an air conditioning comfort in the rear area which is comparable to that of a four-sector air conditioning, said air conditioning installation being simplified in
10 structural terms in order to lower the manufacturing costs.

The object is achieved, according to the invention, by means of the features of patent claim 1.

15

The air conditioning installation according to the invention has the advantage that only one air duct is required for routing the air to each half of the rear area, as compared with a fore-zone air conditioning
20 installation, the allocation of the air-conditioned air, supplied to the rear area, to the foot space and to the midplane being maintained. In order to provide a pleasant space climate for the rear area passengers in spite of the air of equal temperature which flows into
25 the foot space and into the midplane, the allocation of air to the two air outflow devices is carried out as a function of the "heating" and "cooling" operating mode of the air conditioning installation by means of the air distribution member present in the air duct at the
30 branch point of the duct branch. In this case, in the "cooling" operating mode the air quantity flowing into the foot space is sharply throttled or shut off completely and, in the "heating" operating mode, a

greater air quantity is blown in via the foot space.

Advantageous embodiments of the air conditioning
installation according to the invention, together with
5 expedient developments and refinements

(Pages 3-6 of the originally submitted documents follow
on from here)

DaimlerChrysler AG

Patent Claims

5

1. An air conditioning installation for a passenger cell (10) of a vehicle, said passenger cell having a rear area (15), with at least one air duct (18) which leads to the rear area (15) and which can be acted upon by air of preselectable temperature, with a duct branch (19) emanating from the air duct (18), with at least two air outflow devices (21) which are arranged in the rear area (15) and in each case close off the air duct (18) and duct branch (19) and of which at least one is placed in the foot space and at least one is placed in the midplane of the rear area (15), and with a controllable air distribution member (22), arranged at the branch point, for allocating the air volume flowing in the air duct (18) to the two air outflow devices (20, 21), characterized in that the air distribution member (22) is controlled as a function of the "cooling" and "heating" operating modes of the air conditioning installation, in such a way that, in the cooling operation of the air conditioning installation, the air volume part stream arriving at the air outflow device (20) placed in the foot space and, in the heating operation of the air conditioning installation, the air volume part stream arriving at the air outflow device (21) placed in the midplane are throttled in each case.

2. The air conditioning installation as claimed in claim 1, characterized in that the amount of throttling of the respective air volume part stream is carried out

as a function of the temperature difference between an actual temperature and a preselected desired temperature.

5 3. The air conditioning installation as claimed in one of claim 1 or 2, characterized in that the amount of throttling of the respective air volume part stream is carried out as a function of a ventilation temperature.

10

4. The air conditioning installation as claimed in claim 3, characterized in that the ventilation temperature is picked up in the air conditioning installation directly from the air flowing in the air
15 duct (18) or indirectly in a temperature range equivalent to this.

5. The air conditioning installation as claimed in one of claims 1 - 4, characterized in that the air
20 distribution member (22) has an air flap (23), which is pivotable into two end positions in each case shutting off one of the air outflow devices (20, 21), and a pivoting drive (24) which drives the air flap (23) and which can be controlled via a temperature-influenced
25 actuation signal (27).

6. The air conditioning installation as claimed in claim 5, characterized in that the actuation signal for the pivoting drive (24) is formed by the output signal
30 from a desired/actual-value comparator (25) which compares a desired temperature set in a temperature preselection element (27) with the actual temperature measured in the rear area (15).

35 7. The air conditioning installation as claimed in claim 5 or 6, characterized in that the actuation

signal for the pivoting drive is a function of the ventilation temperature.

8. The air conditioning installation as claimed in
5 one of claims 1 - 7, characterized in that the branch point of the duct branch (19) lies near the rear area end of the air duct (18).